



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,152	12/20/2001	Frank Brooks	09752-148001 / 00-122	3566

27572 7590 08/11/2005

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

LE, DANH C

ART UNIT PAPER NUMBER

2683

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/032,152	Applicant(s) BROOKS ET AL.	
	Examiner DANH C. LE	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

The Objection of claim 8 was withdrawn due to the correction of this amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4-8,13-14, 16, 21, 23, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham(US 6,633,760) in view of Ariza (US 2001/0041594).

Art Unit: 2683

As to claim 1, Ham teaches the method of automatically reconnecting a call that was dropped wireless communication system (figure 4), the method comprising:

detecting a call disconnection (called drop detected);

determining the call disconnection was unintentional (col.1, line 65-col.2, line 3);

reconnecting the call (call service).

Ham fails to teach setting an indicator to indicate if the call originated from a mobile or from a base station, attempting reconnection of the call by the mobile station if the indicator indicates that the mobile station originated the call and attempting reconnection of the call by the base station if the indicator indicates that the base station originated the call. Arazi teaches setting an indicator to indicate if the call originated from a mobile or from a base station, attempting reconnection of the call by the mobile station if the indicator indicates that the mobile station originated the call and attempting reconnection of the call by the base station if the indicator indicates that the base station originated the call (figure 7, steps 259, 245-253). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Arazi into the system of Ham in order to establish the call connection of the mobile unit devices with the base station.

As to claim 4, Ham teaches the method of Claim 1, further comprising;

starting a timer upon detecting the call disconnect (T-val2); and

terminating the call upon expiration of the timer (col.6, lines 21-51).

Art Unit: 2683

As to claim 5, Ham teaches the method of Claim 4, further comprising providing indicator the call was terminated (col.4, lines 20-26, disconnected).

As to claim 6, Ham teaches the method of Claim 1, further comprising providing indicator the call was dropped (col.4, lines 20-26).

As to claim 7, Ham teaches the method of Claim 1, further an indicator the reconnected (col.4, lines 20-26).

As to claim 8, Ham teaches a method of reconnecting a call that was dropped in a wireless communication system, the method comprising:

determining a call originator (col.4, lines 27-42, col.5, lines 12-24, channel assignment message for incoming call, and origination message for outgoing call).

detecting a dropped call (called drop detected);

detecting if service is available (call service);

attempting reconnection by the call originator, if the service is available (col.6, line 52-col.7, line 10); and

terminating the call if not reconnected within a predetermined period of time (col.6, lines 31-51).

Ham fails to teach setting an indicator to indicate if the call originated from a mobile or from a base station, attempting reconnection of the call by the mobile station if the indicator indicates that the mobile station originated the call and attempting reconnection of the call by the base station if the indicator indicates that the base station originated the call. Arazzi teaches setting an indicator to indicate if the call originated from a mobile or from a base station, attempting

Art Unit: 2683

reconnection of the call by the mobile station if the indicator indicates that the mobile station originated the call and attempting reconnection of the call by the base station if the indicator indicates that the base station originated the call (figure 7, steps 259, 245-253). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Arazi into the system of Ham in order to establish the call connection of the mobile unit devices with the base station.

As to claim 13, Ham teaches the method of Claim 8, determining the call was dropped by loss of a forward traffic channel (col.7, lines 10-26).

As to claim 14, Ham teaches the method of Claim 8, determining the call was dropped by loss of reverse traffic channel (col.5, line 57-col.6, line 5).

As to claim 16, Ham teaches a wireless communication system (figure 5) comprising:

a base station (BSS);

a mobile station (MS, origination message for outgoing call) which initiates a call with the base station;

mean at the mobile station determined if the call with the base station becomes disconnected (call drop detected);

means for attempting automatically reconnection of the call at the mobile station base on the indicator within a predetermined period of time,

means for terminating the call if reconnected is not achieved within the predetermined period of time (figure 7, 707, 710).

Art Unit: 2683

Ham fails to teach an indicator to indicate that the call originated from a mobile station. Arazi teaches an indicator to indicate that the call originated from a mobile station (figure 7, steps 259, 245-253). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Arazi into the system of Ham in order to establish the call connection of the mobile unit devices with the base station.

As to claim 21, Ham teaches the wireless communication system station of Claim 16, wherein the mobile determines the call was dropped loss of a forward traffic channel (col.7, lines 10-26).

As to claim 23, Ham teaches the wireless communication system (figure 4) comprising:

a mobile station (MS);

a base station (BSS, channel assignment message for incoming call)

which initiates a call with a mobile station;

means at the base station for determining if the call becomes disconnected;

means for attempting automatically reconnect the call at the base station base on the indicator within a predetermined period of time, and

means for terminate the call if reconnection is not achieved within the predetermined period of time (figure 8, 802, 804, 808).

Ham fails to teach an indicator to indicate that the call originated from a base station. Arazi teaches an indicator to indicate that the call originated from a base station (figure 7, steps 259, 245-253). Therefore, it would have been

Art Unit: 2683

obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Arazi into the system of Ham in order to establish the call connection of the mobile unit devices with the base station.

As to claim 27, Ham teaches the wireless communication system of Claim 23, wherein the base station determines the call was dropped by loss of a reverse traffic channel (col.5, line 57-col.6, line 5).

Claims 9-11, 17-19 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham and Arazi in view of Kim (6,343,216).

As to claims 9-11, the combination of Ham and Arazi teaches the method for reconnection of a dropped call in mobile in mobile communication system which notifying mobile station the call was dropped, reconnected or terminated (col.4, lines 20-26). The combination of Ham and Arazi fails to teach notifying other subscriber. Kim teaches notifying other subscriber (col.6, lines 5-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Kim into the system of Ham and Arazi in order to inform all parties the status of the call service either dropped, reconnected or terminated as Kim suggested (col.6, lines 5-13).

As to claims 17-19, the combination of Ham and Arazi teaches the wireless communication method for reconnection of a dropped call in mobile in mobile communication system which the mobile station provides an indication the call was dropped, reconnected or terminated (col.4, lines 20-26). The combination of Ham and Arazi fails to teach the base station provide the notification of the call. Kim teaches the base station provide the notification of

Art Unit: 2683

the call (col.5, lines 32-38, col.8, lines 15-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Kim into the system of Ham and Arazi in order to inform all parties the status of the call service either dropped, reconnected or terminated as Kim suggested (col.6, lines 5-13).

As to claims 24-26, the limitations of these claims are the same limitations of claims 17-19; therefore, these claims are interpreted and rejected as set forth as claims 17-19.

Claims 12, 15, 20, 22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ham and Arazi in view of Pittampalli (US 2002/0065080).

As to claims 12 and 20, the combination of Ham and Arazi teaches the wireless communication method for reconnection of a dropped call in mobile in mobile communication system. The combination of Ham and Arazi fails to teach the mobile station determines the call was dropped by loss an active pilot. Pittampalli teaches the mobile station determines the call was dropped by loss an active pilot (paragraph 0026, 0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Pittampalli into the system of Ham and Arazi in order to detect the calls that in danger of drop by loss an active pilot as Pittampalli suggested (paragraph 0026, 0028).

As to claims 15, 22 and 28, the combination of Ham and Arazi teaches the method for reconnection of a dropped call in mobile in mobile communication

Art Unit: 2683

system which either mobile or base station detecting the call was dropped. The combination of Ham and Arazi fails to teach the call was drop by lack of message acknowledgement. Pittampalli teaches the call was dropped by lack of message acknowledgement (paragraph 0026, 0028). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Pittampalli into the system of Ham and Arazi in order to detect the calls that in danger of drop by lack of message acknowledgement as Pittampalli suggested (paragraph 0026, 0028).

Response to Arguments

Applicant's arguments with respect to claims 1, 4-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Yegani et al (US 2002/0065082) teaches system and method for priority access channel assignment in a cellular telephone system.

B. Antonucci et al (US 6,819,929) teaches system and method for routing number calls in a telecommunication network.

C. Arazi et al (US 2002/0164991) teaches wireless private branch exchange and communicating between mobile units and base station.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

Art Unit: 2683

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



August 5, 2005

DANH CONG LE
PATENT EXAMINER